

- c. means mechanically connecting said rotatable element with said drive motor for rotating the former in synchronization with the indexing movement of said tray;
- d. a multiconductor extension cable including three conductors connected to said commutator-transmitter;
- e. a random selection control unit remote from said projector and including:
  - 1. motor means connected to said three conductors and including a rotor adapted to be rotated in synchronization with said rotatable element in response to signals generated by the commutator-transmitter as a result of rotation of the rotatable element;
  - 2. a seeking contact and means connecting the same with said rotor for being driven in an arcuate path thereby;
  - 3. selector means having support means mounting first and second contact strips with adjacent ends thereof in space relation and defining a dielectric area therebetween, said contact strips being arranged in an arcuate path for wiping engagement by said seeking contact;
  - 4. slide selection means associated with said selector contact means and operable to establish the extent of movement of said seeking contact which is necessary to effect a first contact condition when said seeking contact engages the dielectric area, a second contact condition being effected during movement of said seeking contact; and
- f. circuit means connecting said drive motor, said seeking contact and said selector contact means via an extension cable and adapted to cause deenergization and energization of said drive motor upon occurrence of said first and second contact conditions respectively, said circuit means including rectifying means providing said first and second contact strips with positive and negative DC voltage, respectively, during the occurrence of the second contact condition to alternately rotate the drive motor in forward and reverse directions depending on whether said first or second strip is being wiped by said seeking contact.
- 7. The system according to claim 6, wherein the total number of conductors in said extension cable is not in excess of eight.
- 8. In a slide projector of the type having a projection gate and a slide tray with a plurality of slide-receiving spaces therein, a system for presenting at said gate any one of said spaces selected at random comprising:
  - a. drive means including a reversible drive motor for alternately indexing the tray in advance and reverse directions;
  - b. a commutator-transmitter including a rotatable element and means mechanically rotating the same by said drive motor in synchronization with indexing movement of said tray;
  - c. receiving means remote from said commutator-transmitter and including motor means having a rotor associated with said commutator-transmitter wherein the rotor is rotated in synchronization with said element in response to signals generated by the commutator-transmitter as the result of rotation of the rotatable element;
  - d. a rotatably mounted disk having first and second arcuate contact strips thereon with ends of the strips being in spaced relation and adjacent a dielectric area;
  - e. a seeking contact mounted for being driven by said rotor in an arcuate path for alternate wiping engagement with said strips;
  - f. circuit means connecting said reversible drive motor, said strips and said seeking contact, which circuit means includes rectifying means providing said first and second strips with positive and negative DC voltage, respectively, the circuit means being adapted alternately to energize said drive motor in forward and reverse directions as determined by whether said first strip or said second strip

- is engaged by said seeking contact, the motor being deenergized by arrival of the seeking contact at said dielectric area; and
- g. manually operated selection means including indicator means for rotating said disk in either direction for bringing one of said strips into engagement with said seeking contact for establishing an initial spatial relationship between the latter and said dielectric area.
- 9. The system according to claim 8 further defined by:
  - a. said circuit means including a "random selection initiate switch" and a "single-slide initiate switch," which switches are connected in parallel and are of the normally open type;
  - b. a manually operated "one-slide advance actuator" and a manually operated "one-slide reverse actuator";
  - c. mechanism connecting each of said actuators with said single-slide initiate switch for closing the latter upon actuation of either of said actuators; and
  - d. stepping means adapted to engage said disk and operated by each of said actuators for stepping said disk in advance and reverse directions in response to actuation of said advance actuator and said reverse actuator, respectively.
- 10. The system according to claim 8 further defined by:
  - a. a second seeking contact mounted for being driven by said rotor in an arcuate path for alternate wiping engagement with said contact strips at an angular rate of movement different from the rate of movement of said first-mentioned seeking contact; and
  - b. selector switch means for alternately placing said first and second seeking contacts in said circuit means thereby adapting said projector to accommodate another tray having a number of slide-receiving spaces different from the number of slide-receiving spaces in said first-mentioned tray.
- 11. The system according to claim 10 further defined by:
  - a. said indicator means including first and second numerical indicia means corresponding respectively to the number of slide-receiving spaces in said first-mentioned tray and said second-mentioned tray;
  - b. operating means for said selector switch means; and
  - c. masking means shiftably mounted for alternately obscuring at least a portion of said first and second indicia means, said masking means being shifted in response to operation of said operating means.
- 12. In a slide projector of the type having a projection gate and a slide tray with a plurality of slide-receiving spaces, a system for presenting at said gate any one of said spaces selected at random comprising:
  - a. indexing means including a reversible electric motor and an indexing member driven thereby, which number is engageable with a slide tray for indexing the latter in forward and reverse directions in response to forward and reverse directions in response to forward and reverse energization of said motor, respectively;
  - b. circuit means connected with said motor and including selector means for one-at-a-time selection of numbers corresponding to the spaces in the associated slide tray;
  - c. said selector means including relatively movable contacts for establishing a discreet spatial relationship of such contacts for each number selected by the selector means and for establishing forward or reverse signals for each of said contact relationships to alternately energize said motor in forward and reverse directions which results in the minimum amount of movement of said indexing member to present the selected tray space at said gate.
- 13. The system according to claim 12 wherein said relatively movable contacts include a pair of arcuate contacts movable in response to operation of said selection means and a seeking contact driven in synchronization with said indexing means and arranged for one-at-a-time wiping engagement of said arcuate contacts, said circuit means providing said arcuate contacts with respective plus and minus polarity.

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